

REMARKS

This Submission addresses the issues raised by the Examiner in the Office Action mailed March 28, 2006. Initially, Applicants would like to thank the Examiner for the careful consideration given this case. In view of the above amendments and the following remarks, Applicants feel that all outstanding issues have been addressed and prompt allowance of all remaining claims is respectfully requested.

Status of the Claims

In the June 7, 2004, Office Action, the Examiner rejected the existing claims in light of U.S. Patent Publication No. 2002/0005902 to Yuen ("Yuen"). In response to this, Applicants amended the independent claims of the present invention to specifically include two concepts: (1) maintaining the size of the target object through each of the plurality of different camera views or video feeds by controlling the focal length of the various cameras ("means for controlling the focal length of each additional camera such that the size of the moving object of interest is generally equal in each of the master and slave cameras"); and (2) including a control in the user interface to select successive additional camera images to effectuate a partial rotation around the object of interest in the display (while maintaining the size of the object of interest during virtual rotation). See Claim 1. Clearly, neither of these concepts was shown in Yuen.

In the January 27, 2005, Office Action, the Examiner withdrew his rejection related to Yuen and argued that U.S. Patent No. 5,164,827 to Paff ("Paff") anticipates the amended claims of the present invention. As pointed out in Applicants' response to the January 27, 2005, Office Action, the Examiner almost completely ignores the amended portion of the claims in making his arguments. In

fact, Paff is clearly distinguishable and is merely a general purpose security system patent.

In the most recent March 28, 2006, Office Action, the Examiner has withdrawn the anticipation rejection related to Paff and has now argued that an unrelated U.S. Patent Application 5,729,471 to Jain ("Jain"), which neither includes the features purportedly missing from the Paff reference nor is it in the same technological art as Paff, can somehow be combined with Paff to render obvious the Applicants' invention. Such a rejection cannot be supported.

The Present Office Action

In the present Office Action, the Examiner has rejected Claims 1, 2, 4, 5 7-9 and 11-15 under 35 U.S.C. 103 (a) as being unpatentable over Paff in view of Jain. Specifically, the Examiner stands by previous statements made regarding Paff and then posits that:

The Jain reference is evidence the [sic] one of ordinary skill in the art at the time to see more advantage for the video camera selecting successive video images from a plurality of additional cameras, each successive one of said plurality of additional cameras being adjacent to a preceding camera so that a three-dimensional video model of the scene can be generated from those adjacent camera images in real time.

Office Action at 8. However, whether or not this statement is true, the ability for Jain to use software to create a 3-D image out of different camera shots of an object has nothing to do with the present invention and has nothing to do with the claims, as written. Here, the Examiner recasts the claims to suit Jain, and even so, still does not show how Jain teaches or suggests the present invention, as defined below.

Paff Reference

a. Focal Length Control

As stated in previous responses, the first key area of the claims not addressed by Paff involves adjusting the focal length of the additional (slave) cameras in order to maintain the size of the target object in each of the plurality of additional cameras as these cameras are directed based upon the position of the master video camera. In an attempt to address this limitation, the Examiner points to a brief mention at the end of Paff that:

The slave cameras SD1-SD5, responsive to this information, can then adjust their own zooming states or conditions so that the subject is viewed at approximately the same magnification as with the master camera. In this manner, if the zooming state of the master camera is set to wide angle so that a large group of subjects can be tracked through the premises, the slave cameras will also be set to a wide angle position.

Paff at col. 8, lines 2-10. This section of Paff discusses only a general condition of wide angle or normal zooming function. It does not teach or suggest any aspect of the claimed focal length adjustment which provides output-video quality size maintenance such that the video feeds from the plurality of cameras can be selected sequentially (one-by-one) and the size of the object of interest is maintained. As described and claimed in the present invention, the adjustments made to the focus and the adjustments made to the zoom are two completely different attributes to be controlled. The Examiner's conclusory statements to the contrary do not constitute a proper rejection, and, alternatively, cannot form a proper prima facie case of obviousness. In order to cure this improper rejection, the Examiner must show the teaching of this element within Paff (which does not exist) or some other source.

b. The “Spin” User Controller

More importantly, Paff does not have any disclosure whatsoever about the control in the user interface that allows the selection between successive additional camera images in order to carry out the “virtual” rotation around the target object (either at a single instant in time or sequentially – Claim 4). Specifically, prior to the most recent amendment, the “user interface” was claimed to include “a control to select successive additional camera images to effectuate a partial rotation around the object of interest in the display such that the size of the object of interest remains generally equal throughout the rotation through successive additional camera images.” See Claim 1. The Examiner, in attempting to create a rejection where no support exists, cites to the following passage of Paff:

The station 11 can be provided with a graphics capability which, based on the coordinate position of a subject, locates an icon (graphical representation) of the subject on a floor plan of the premises 1 that is displayed on the station monitor. This would indicate the location of the subject relative to the floor plan of the premises.

Paff at col. 8, lines 16-22. In other words, the cited portion of Paff is merely directed to a picture of a floor plan (of a store) upon which an icon of a target object may be placed for location purposes. It has absolutely nothing to do with the claimed control in the user interface, and it has absolutely nothing to do with creating an output video stream in which the various video feeds are selected, one-by-one, to create a feeling of rotating around the target object.

Moreover, the Examiner has consistently stated that Paff teaches providing images from a target object “from different spatial perspectives” and that this is somehow the same as a single user control that allows for the virtual “spinning” or rotation” of the viewer around the object of interest (or the object of

interest around a vertical axis) in order to “effectuate partial rotation around the object of interest.” Office Action at 3. At most, Paff contains one or more video monitors that can show a feed from one or more security cameras. It contains no teaching or suggestion of any user control that provides for a virtual rotation around the object of interest (as if the viewer is suspended around the object of interest and “flies” in a partial circle around the object). In fact, this is impossible with the system of Paff, and the Examiner has not pointed to any portion of Paff that teaches this feature. Instead, the Examiner merely states that showing camera feeds from “different spatial perspectives” is the same as this claim language. Common sense and the plain meaning of the language of the claims counsel that the Examiner is incorrect here.

Most Recent Claim Amendments

In its last response, Applicants have further amended independent Claims 1, 7, 11 and 13 above in order to more fully develop the “control device” of the user interface that is used to virtually “spin” or “rotate” the user around the object of interest. The claimed control provides the user with the feeling and experience of “flying” around the scene of the action (object of interest). This is especially useful for sporting events during slow-motion replays.

Specifically, this portion of the present claims now specifically recites that the user control used to spin or rotate the user around the object of interest is adapted to successively select additional camera images from adjacent cameras. In other words, the cameras (master and slaves) surround the object of interest, and the user interface includes a control knob that spins the video feed from one camera to the next adjacent camera feed, to the next adjacent camera feed, and so forth. Through this effect, which is not taught or suggested by Paff, a user watching the video display will get the sensation that they are flying around the object of

interest, either at a point frozen in time or sequentially. This effect has been shown especially desirable during slow-motion sequences at sporting events, but has applicability across many genres.

Moreover, this disclosed and claimed user control is much more advanced than the ability to merely display an object of interest from “different spatial perspectives” as suggested by the Examiner. These amendments are merely clarifying in nature and are not intended to change the scope of the present claims in any way. They are intended instead to more clearly point out the vast differences between the present invention and the prior art.

The Jain Reference and the Present Claims

In the current Office Action, the Examiner has filled in the holes in the teachings of Paff by citing to selected portions of Jain. The cited portions of the Jain reference describe how a multi-camera system can be used to capture different views of a target object which can then be synthesized into a single pseudo-three-dimensional image. While this may be a useful undertaking, this has nothing to do with the present invention, and the controller described in Jain is not capable of performing the virtual rotation or spin claimed presently.

In analyzing the cited portions of Jain, it is clear that there is no support for the Examiner’s conclusions. At col. 21, lines 5-30, Jain merely describes a video feed selection mechanism in which different stored videos can be played by selecting different feeds. It offers nothing in the way of a single device that allows for a spin between adjacent cameras that have the same focus, zoom, etc. as claimed herein. At col. 24, lines 30-37, Jain describes a system in which three video feeds are recorded. And may be played back, but again there is nothing about a single user device (such as a spin knob) which allows for the virtual rotation around the

object. Finally, the references to cols. 31, 32, 33 and 40 describe only the combination of data from different cameras in order to synthesize a larger (perhaps 3-D) representation of the target object. Again, this may be a useful exercise, but it does not satisfy the present claims.

In short, Jain describes a simple user controller, much like Paff, in which a user can push a button and select various camera angles to view an object. This is not a single user control that allows for the spin or virtual rotation around the target object. Moreover, Jain is not a master/slave camera system, and it is therefore in a completely non-analogous art to the Paff reference. The Examiner's proposed combination of these references, which as described above does not render the claims obvious, is also improper as the Examiner has not made out a prima facie case to make the combination in non-analogous arts.

Request For Interview


Since Applicants feel that the Examiner is not giving the language of the claims its common and ordinary meaning, Applicants would like to interview this case at the Examiner's earliest convenience. In the interview, Applicants would like the opportunity to discuss the prior art and the independent claims of the present invention to more particularly point out the many distinctions of the present claims over the cited art. Finally, it is noted that Applicants have twice requested such an interview, and the Examiner ignored or refused its request for an interview. It is not the Examiner's choice as to whether to hold an interview or not. By right, Applicants are allowed to hold such an interview. Should the Examiner again refuse to hold such an interview, Applicants will be forced to contact the Examiner's supervisory or Group Director.

The above amendments and accompanying remarks address each and every issue raised by the Examiner in the Office Action from the parent case. Each

amendment finds full support throughout the specification as noted above. Applicants believe that all claims of the present invention are now in condition for final allowance. If the Examiner feels that any issues remain outstanding, the Examiner is encouraged to contact Applicant's attorney at the contact information below.

Respectfully submitted,

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